

US 1997-63329P	19971027 (60)
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US 1997-63549P	19971028 (60)
US 1997-63541P	19971028 (60)
US 1997-63550P	19971028 (60)
US 1997-63542P	19971028 (60)
US 1997-63544P	19971028 (60)
US 1997-63564P	19971028 (60)
US 1997-63734P	19971029 (60)
US 1997-63738P	19971029 (60)
US 1997-63704P	19971029 (60)
US 1997-63435P	19971029 (60)
US 1997-64215P	19971029 (60)
US 1997-63735P	19971029 (60)
US 1997-63732P	19971029 (60)
US 1997-64103P	19971031 (60)
US 1997-63870P	19971031 (60)
US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
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US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21263
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 10:30:42 ON 15 JAN 2003)

FILE 'MEDLINE, DGENE, EMBASE, SCISEARCH, USPATFULL, WPIDS, JICST-EPLUS, FSTA' ENTERED AT 10:31:56 ON 15 JAN 2003

L1	2316 S BONE MORPHOGENIC PROTEIN
L2	26968 S ARTICULAR CARTILAGE
L3	125 S OSTEOCHONDRAL GRAFT
L4	0 S L1 () L2 () L3
L5	76 S L1 AND L2
L6	1 S L5 AND L3
L7	1 S L3 AND L1

=> s l3 and regeneration

L8 4 L3 AND REGENERATION

=> d l8 ti abs ibib tot

L8	ANSWER 1 OF 4 USPATFULL
TI	Device for regeneration of articular cartilage and other tissue
AB	An implantable device for facilitating the healing of voids in bone, cartilage and soft tissue is disclosed. A preferred embodiment includes

a cartilage region comprising a polyelectrolytic complex joined with a subchondral bone region. The cartilage region, of this embodiment, enhances the environment for chondrocytes to grow articular cartilage; while the subchondral bone region enhances the environment for cells which migrate into that region's macrostructure and which differentiate into osteoblasts. A hydrophobic barrier exists between said regions, of this embodiment. In one embodiment, the polyelectrolytic complex transforms to hydrogel, following the implant procedure.

ACCESSION NUMBER: 2002:55324 USPATFULL
 TITLE: Device for **regeneration** of articular cartilage and other tissue
 INVENTOR(S): Brekke, John H., Duluth, MN, UNITED STATES
 Goldman, Scott M., Paoli, PA, UNITED STATES

	NUMBER	KIND	DATE
	-----	-----	-----
PATENT INFORMATION:	US 2002032488	A1	20020314
APPLICATION INFO.:	US 2001-909027	A1	20010719 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-206604, filed on 7 Dec 1998, GRANTED, Pat. No. US 6264701 Division of Ser. No. US 1994-242557, filed on 13 May 1994, GRANTED, Pat. No. US 5981825		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Alan D. Kamrath, Kensey Nash Corporation, 55 E. Uwchlan Avenue, Exton, PA, 19341		
NUMBER OF CLAIMS:	56		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1349		

L8 ANSWER 2 OF 4 USPATFULL

TI Scaffold matrix and tissue maintaining systems

AB The invention concerns a scaffold which is used as a growth supportive base for various cells and tissue explants from three-dimensional tissue comprising naturally derived connective or skeletal tissue into attached flakes having a very high porosity. Alternatively the scaffold is composed of fused epiphyses.

ACCESSION NUMBER: 2002:16925 USPATFULL
 TITLE: Scaffold matrix and tissue maintaining systems
 INVENTOR(S): Nevo, Zvi, Herzliya, ISRAEL
 Robinson, Dror, Shimshon, ISRAEL
 PATENT ASSIGNEE(S): RAMOT UNIVERSITY AUTHORITY FOR APPLIED RESEARCH & INDUSTRIAL DEVELOPMENT LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
	-----	-----	-----
PATENT INFORMATION:	US 2002009805	A1	20020124
APPLICATION INFO.:	US 2001-826389	A1	20010404 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-345138, filed on 6 Jul 1999, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	LADAS & PARRY, 26 WEST 61ST STREET, NEW YORK, NY, 10023		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Page(s)		
LINE COUNT:	903		

L8 ANSWER 3 OF 4 USPATFULL

TI Multi-stage collagen-based template or implant for use in the repair of cartilage lesions

AB The invention is a template to aid in the **regeneration** of

articular cartilage. The template is formed by combining a porous collagen sponge ("collagen matrix") with a dense collagen membrane. The dense collagen membrane is placed on the surface of the cartilage defect to prevent cell migration from the subchondral plate and vasculature. The collagen membrane will allow movement and exchange of fluids, nutrients, cytokines and other factors necessary for cartilage **regeneration**. The collagen matrix has been developed to allow attachment and growth of cells, specifically chondrocytes which are normally found in articular cartilage. The collagen matrix can be combined with chondrocytes in vitro, and therefore serve to transport cultured cells to the defect site and to retain the cells in position following implantation. Procedures are described to effectively use the two-staged template, and to fix the template to the repair site.

ACCESSION NUMBER: 2000:80202 USPATFULL
 TITLE: Multi-stage collagen-based template or implant for use in the repair of cartilage lesions
 INVENTOR(S): Pachence, James M., Hopewell, NJ, United States
 Frenkel, Sally, Flushing, NY, United States
 Menche, David, New York, NY, United States
 PATENT ASSIGNEE(S): The Hospital for Joint Disease Orthopaedic Institute, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6080194		20000627
APPLICATION INFO.:	US 1995-385290		19950210 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Prebilic, Paul B.		
LEGAL REPRESENTATIVE:	Caesar, Rivise, Bernstein, Cohen & Pokotilow, Ltd.		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	636		

L8 ANSWER 4 OF 4 JICST-EPlus COPYRIGHT 2003 JST

TI Four Case Reports of Mosaicplasty for Knee Joint.

AB Repairing a defect or injury of articular cartilage is a significant challenge. **Osteochondral graft**, periosteal transplantation, drilling, and chondrocyte transplantation have been attempted clinically for articular surface defects. We evaluated repairs of articular cartilage by mosaicplasty. Four knees of 4 patients (2 men and 2 women) that underwent mosaicplasty were evaluated in this series. Mean patient age at surgery was 41 years. All knees underwent follow-up MRI, 2 knees underwent follow-up arthroscopy and needle biopsy after informed consent was obtained. The mean period from surgery to final follow-up was 21 months. The mean period from surgery to follow-up arthroscopy was 11 months. Four cases of mosaicplasty presented satisfactory **regeneration** of the articular cartilage as seen by MRI or arthroscopic examination. Two knees, after receiving mosaicplasty, demonstrated **regeneration** of hyaline cartilage even around the gaps in mosaicplasty, by needle biopsy. However, the structure of hyaline cartilage around the gaps in mosaicplasty differed from that of normal hyaline cartilage. Several reports described a good clinical outcome of mosaicplasty. However, only Hangody reported good hyaline cartilage **regeneration** at the recipient site and fibrous cartilage at the donor site. Our results demonstrated **regeneration** of the hyaline cartilage in the gap area of mosaicplasty, but the structure of hyaline cartilage differed from normal. There is a risk of renewed degeneration due to the poor structure of hyaline cartilage. Mosaicplasty is a sure method of repairing hyaline cartilage where there is a small defect in the articular surface. However, one report pointed out the risk of articular degeneration at the donor site after mosaicplasty. One of our cases

demonstrated bony defect at the donor site 21 months after mosaicplasty. Adequate observation of both the donor site and recipient site is needed after mosaicplasty. (author abst.)

ACCESSION NUMBER: 1010895536 JICST-EPlus
TITLE: Four Case Reports of Mosaicplasty for Knee Joint.
AUTHOR: ICHINOHE SADAFUMI; KOYAMA AKIKO; ENDO TAKESHI; KITAGAWA YUKA; YOSHIDA MASAACKI; SHIMAMURA TADASHI
SHIROKURA YOSHIHIRO; HONDA KEI
CORPORATE SOURCE: Iwateidai Seikeigeka
Moriokashibyoin Seikeigeka
SOURCE: Nippon Riumachi, Kansetsu Geka Gakkai Zasshi (Japanese Journal of Rheumatism and Joint Surgery), (2001) vol. 20, no. 2, pp. 169-175. Journal Code: Y0692A (Fig. 6, Ref. 10) ISSN: 0287-3214
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Short Communication
LANGUAGE: Japanese
STATUS: New

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(FILE 'HOME' ENTERED AT 10:30:42 ON 15 JAN 2003)

FILE 'MEDLINE, DGENE, EMBASE, SCISEARCH, USPATFULL, WPIDS, JICST-EPLUS, FSTA' ENTERED AT 10:31:56 ON 15 JAN 2003

L1 2316 S BONE MORPHOGENIC PROTEIN
L2 26968 S ARTICULAR CARTILAGE
L3 125 S OSTEOCHONDRAL GRAFT
L4 0 S L1 () L2 () L3
L5 76 S L1 AND L2
L6 1 S L5 AND L3
L7 1 S L3 AND L1
L8 4 S L3 AND REGENERATION

=> s l5 and regeneration

L9 44 L5 AND REGENERATION

=> d l9 ti abs ibib 1-15

L9 ANSWER 1 OF 44 MEDLINE
TI Cartilage and bone **regeneration** using gene-enhanced tissue engineering.
AB Joint cartilage injury remains a major problem in orthopaedics with more than 500,000 cartilage repair procedures performed yearly in the United States at a cost of hundreds of millions of dollars. No consistently reliable means to regenerate joint cartilage currently exists. The technologies of gene therapy and tissue engineering were combined using a retroviral vector to stably introduce the human **bone morphogenic protein-7** complementary deoxyribonucleic acid into periosteal-derived rabbit mesenchymal stem cells. **Bone morphogenic protein-7** secreting gene modified cells subsequently were expanded in monolayer culture, seeded onto polyglycolic acid grafts, implanted into a rabbit knee osteochondral defect model, and evaluated for bone and cartilage repair after 4, 8, and 12 weeks. The grafts containing **bone morphogenic protein-7** gene modified cells consistently showed complete or near complete bone and **articular cartilage regeneration** at 8 and 12 weeks whereas the grafts from the control groups had poor repair as judged by macroscopic, histologic, and immunohistologic criteria. This is the first report of **articular cartilage regeneration** using a combined gene therapy and tissue engineering approach.

ACCESSION NUMBER: 2000488818 MEDLINE

DOCUMENT NUMBER: 20492911 PubMed ID: 11039767
 TITLE: Cartilage and bone **regeneration** using gene-enhanced tissue engineering.
 AUTHOR: Mason J M; Breitbart A S; Barcia M; Porti D; Pergolizzi R G; Grande D A
 CORPORATE SOURCE: Department of Research, North Shore University Hospital-New York University School of Medicine, Manhasset 11030, USA.
 SOURCE: CLINICAL ORTHOPAEDICS AND RELATED RESEARCH, (2000 Oct) (379 Suppl) S171-8.
 Journal code: 0075674. ISSN: 0009-921X.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
 ENTRY MONTH: 200011
 ENTRY DATE: Entered STN: 20010322
 Last Updated on STN: 20010322
 Entered Medline: 20001103

L9 ANSWER 2 OF 44 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

TI Cartilage and bone **regeneration** using gene-enhanced tissue engineering.

AB Joint cartilage injury remains a major problem in orthopaedics with more than 500,000 cartilage repair procedures performed yearly in the United States at a cost of hundreds of millions of dollars. No consistently reliable means to regenerate joint cartilage currently exists. The technologies of gene therapy and tissue engineering were combined using a retroviral vector to stably introduce the human **bone morphogenic protein-7** complementary deoxyribonucleic acid into periosteal-derived rabbit mesenchymal stem cells. **Bone morphogenic protein-7** secreting gene modified cells subsequently were expanded in monolayer culture, seeded onto polyglycolic acid grafts, implanted into a rabbit knee osteochondral defect model, and evaluated for bone and cartilage repair after 4, 8, and 12 weeks. The grafts containing **bone morphogenic protein-7** gene modified cells consistently showed complete or near complete bone and **articular cartilage regeneration** at 8 and 12 weeks whereas the grafts from the control groups had poor repair as judged by macroscopic, histologic, and immunohistologic criteria. This is the first report of **articular cartilage regeneration** using a combined gene therapy and tissue engineering approach.

ACCESSION NUMBER: 2000362559 EMBASE
 TITLE: Cartilage and bone **regeneration** using gene-enhanced tissue engineering.
 AUTHOR: Mason J.M.; Breitbart A.S.; Barcia M.; Porti D.; Pergolizzi R.G.; Grande D.A.
 CORPORATE SOURCE: Dr. J.M. Mason, Gene Therapy Vector Laboratory, Department of Research, North Shore University Hospital, 350 Community Drive, Manhasset, NY 11030, United States
 SOURCE: Clinical Orthopaedics and Related Research, (2000) -/379 SUPPL. (S171-S178).
 Refs: 27
 ISSN: 0009-921X CODEN: CORTBR
 COUNTRY: United States
 DOCUMENT TYPE: Journal; Conference Article
 FILE SEGMENT: 022 Human Genetics
 033 Orthopedic Surgery
 036 Health Policy, Economics and Management
 LANGUAGE: English
 SUMMARY LANGUAGE: English

L9 ANSWER 3 OF 44 SCISEARCH COPYRIGHT 2003 ISI (R)

TI Cartilage and bone **regeneration** using gene-enhanced tissue

engineering

AB Joint cartilage injury remains a major problem in orthopaedics with more than 500,000 cartilage repair procedures performed yearly in the United States at a cost of hundreds of millions of dollars. No consistently reliable means to regenerate joint cartilage currently exists. The technologies of gene therapy and tissue engineering were combined using a retroviral vector to stably introduce the human bone morphogenetic protein-7 complementary deoxyribonucleic acid into periosteal-derived rabbit mesenchymal stem cells. **Bone morphogenetic protein-7** secreting gene modified cells subsequently were expanded in monolayer culture, seeded onto polyglycolic acid grafts, implanted into a rabbit knee osteochondral defect model, and evaluated for bone and cartilage repair after 4, 8, and 12 weeks. The grafts containing **bone morphogenetic protein-7** gene modified cells consistently showed complete or near complete bone and **articular cartilage regeneration** at 8 and 12 weeks whereas the grafts from the control groups had poor repair as judged by macroscopic, histologic, and immunohistologic criteria. This is the first report of **articular cartilage regeneration** using a combined gene therapy and tissue engineering approach.

ACCESSION NUMBER: 2000:777821 SCISEARCH
THE GENUINE ARTICLE: 362NP
TITLE: Cartilage and bone **regeneration** using gene-enhanced tissue engineering
AUTHOR: Mason J M (Reprint); Breitbart A S; Barcia M; Porti D; Pergolizzi R G; Grande D A
CORPORATE SOURCE: NYU, GENE THERAPY VECTOR LAB, DEPT RES, N SHORE UNIV HOSP, SCH MED, 350 COMMUNITY DR, MANHASSET, NY 11030 (Reprint); NYU, DIV PLAST & RECONSTRUCT SURG, SCH MED, N SHORE UNIV HOSP, MANHASSET, NY 11030; NYU, DIV ORTHOPED SURG, SCH MED, N SHORE UNIV HOSP, DEPT SURG, MANHASSET, NY 11030
COUNTRY OF AUTHOR: SOURCE: CLINICAL ORTHOPAEDICS AND RELATED RESEARCH, (OCT 2000) No. 379, Supp. [S], pp. S171-S178.
Publisher: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621.
ISSN: 0009-921X.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 27
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 4 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:3495 USPATFULL
TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same
INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES

Filvaroff, Ellen, San Francisco, CA, UNITED STATES
 Fong, Sherman, Alameda, CA, UNITED STATES
 Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
 Gerber, Hanspeter, San Francisco, CA, UNITED STATES
 Gerritsen, Mary E., San Mateo, CA, UNITED STATES
 Goddard, Audrey, San Francisco, CA, UNITED STATES
 Godowski, Paul J., Burlingame, CA, UNITED STATES
 Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
 Gurney, Austin L., Belmont, CA, UNITED STATES
 Hillan, Kenneth J., San Francisco, CA, UNITED STATES
 Kljavin, Ivar J., Lafayette, CA, UNITED STATES
 Mather, Jennie P., Millbrae, CA, UNITED STATES
 Pan, James, Belmont, CA, UNITED STATES
 Paoni, Nicholas F., Belmont, CA, UNITED STATES
 Roy, Margaret Ann, San Francisco, CA, UNITED STATES
 Stewart, Timothy A., San Francisco, CA, UNITED STATES
 Tumas, Daniel, Orinda, CA, UNITED STATES
 Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
 Wood, William I., Hillsborough, CA, UNITED STATES
 Genentech, Inc. (U.S. corporation)

PATENT ASSIGNEE(S) :

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003003530	A1	20030102
APPLICATION INFO.:	US 2001-904011	A1	20010711 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000302
	WO 2000-US7377	20000320
	WO 2000-US8439	20000330
	WO 2000-US14042	20000522
	WO 2000-US15264	20000602
	WO 2000-US20710	20000728
	WO 2000-US23328	20000824
	US 1997-59115P	19970917 (60)
	US 1997-59184P	19970917 (60)
	US 1997-59122P	19970917 (60)
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US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21255
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for

producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:344632 USPATFULL
TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same
INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Filvaroff, Ellen, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES
Goddard, Audrey, San Francisco, CA, UNITED STATES
Godowski, Paul J., Burlingame, CA, UNITED STATES
Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
Gurney, Austin L., Belmont, CA, UNITED STATES
Hillan, Kenneth J., San Francisco, CA, UNITED STATES
Kljavin, Ivar J., Lafayette, CA, UNITED STATES
Mather, Jennie P., Millbrae, CA, UNITED STATES
Pan, James, Belmont, CA, UNITED STATES
Paoni, Nicholas F., Belmont, CA, UNITED STATES
Roy, Margaret Ann, San Francisco, CA, UNITED STATES
Stewart, Timothy A., San Francisco, CA, UNITED STATES
Tumas, Daniel, Orinda, CA, UNITED STATES
Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
Wood, William I., Hillsborough, CA, UNITED STATES
PATENT ASSIGNEE(S): Genentech, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002198366	A1	20021226
APPLICATION INFO.:	US 2001-907841	A1	20010717 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224

WO 2000-US5841	20000402
WO 2000-US7377	20000320
WO 2000-US8439	20000330
WO 2000-US14042	20000522
WO 2000-US15264	20000602
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US 1997-65186P	19971112 (60)
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US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS:	38
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	124 Drawing Page(s)
LINE COUNT:	21263

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 6 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:343945 USPATFULL

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Filvaroff, Ellen, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES
Goddard, Audrey, San Francisco, CA, UNITED STATES
Godowski, Paul J., Burlingame, CA, UNITED STATES
Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
Gurney, Austin L., Belmont, CA, UNITED STATES
Hillan, Kenneth J., San Francisco, CA, UNITED STATES
Kljavin, Ivar J., Lafayette, CA, UNITED STATES
Mather, Jennie P., Millbrae, CA, UNITED STATES
Pan, James, Belmont, CA, UNITED STATES
Paoni, Nicholas F., Belmont, CA, UNITED STATES
Roy, Margaret Ann, San Francisco, CA, UNITED STATES
Stewart, Timothy A., San Francisco, CA, UNITED STATES
Tumas, Daniel, Orinda, CA, UNITED STATES
Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
Wood, William I., Hillsborough, CA, UNITED STATES
PATENT ASSIGNEE(S): Genentech, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002197671	A1	20021226
APPLICATION INFO.:	US 2001-907824	A1	20010717 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129

WO 1999-US28313	19991130
WO 1999-US28301	19991201
WO 1999-US28564	19991202
WO 1999-US28565	19991202
WO 1999-US30095	19991216
WO 1999-US30999	19991220
WO 1999-US30911	19991220
WO 2000-US219	20000105
WO 2000-US3565	20000211
WO 2000-US4414	20000222
WO 2000-US5004	20000224
WO 2000-US5841	20000302
WO 2000-US7377	20000320
WO 2000-US8439	20000330
WO 2000-US14042	20000522
WO 2000-US15264	20000602
WO 2000-US20710	20000728
WO 2000-US23328	20000824
US 1997-59115P	19970917 (60)
US 1997-59184P	19970917 (60)
US 1997-59122P	19970917 (60)
US 1997-59117P	19970917 (60)
US 1997-59113P	19970917 (60)
US 1997-59121P	19970917 (60)
US 1997-59119P	19970917 (60)
US 1997-59263P	19970918 (60)
US 1997-59266P	19970918 (60)
US 1997-62125P	19971015 (60)
US 1997-62287P	19971017 (60)
US 1997-62285P	19971017 (60)
US 1997-63486P	19971021 (60)
US 1997-62816P	19971024 (60)
US 1997-62814P	19971024 (60)
US 1997-63127P	19971024 (60)
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US 1997-63045P	19971024 (60)
US 1997-63128P	19971024 (60)
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US 1997-63541P	19971028 (60)
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US 1997-63738P	19971029 (60)
US 1997-63704P	19971029 (60)
US 1997-63435P	19971029 (60)
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US 1997-63735P	19971029 (60)
US 1997-63732P	19971029 (60)
US 1997-64103P	19971031 (60)
US 1997-63870P	19971031 (60)
US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
US 1997-65186P	19971112 (60)
US 1997-65846P	19971117 (60)
US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)

US 1997-66770P 19971124 (60)
US 1997-66511P 19971124 (60)
US 1997-66453P 19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO,
IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 22162
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 7 OF 44 USPATFULL

TI Methods of using bone morphogenic proteins as biomarkers for determining
cartilage degeneration and aging
AB Methods are provided for determining cartilage degeneration,
regeneration, or aging in a joint tissue in a patient by
measuring levels of osteogenic protein-1 (OP-1) protein and/or mRNA in
synovial fluid or joint tissue. The methods according to the invention
are useful for detecting, diagnosing, predicting, determining a
predisposition for, or monitoring joint tissue degeneration,
regeneration, or aging in a patient including inflammatory joint
disease or age-related disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:337321 USPATFULL
TITLE: Methods of using bone morphogenic proteins as
biomarkers for determining cartilage degeneration and
aging
INVENTOR(S): Chubinskaya, Susanna, Vernon Hills, IL, UNITED STATES
Rueger, David C., Southborough, MA, UNITED STATES
Kuettner, Klaus E., Chicago, IL, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002192679	A1	20021219
APPLICATION INFO.:	US 2002-81163	A1	20020220 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-348111P	20011109 (60)
	US 2001-270528P	20010221 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET, BOSTON, MA, 02110	
NUMBER OF CLAIMS:	47	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	15 Drawing Page(s)	
LINE COUNT:	1482	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 8 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the
same
AB The present invention is directed to novel polypeptides and to nucleic
acid molecules encoding those polypeptides. Also provided herein are
vectors and host cells comprising those nucleic acid sequences, chimeric
polypeptide molecules comprising the polypeptides of the present
invention fused to heterologous polypeptide sequences, antibodies which
bind to the polypeptides of the present invention and to methods for
producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:337301 USPATFULL

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Filvaroff, Ellen, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES
Goddard, Audrey, San Francisco, CA, UNITED STATES
Godowski, Paul J., Burlingame, CA, UNITED STATES
Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
Gurney, Austin L., Belmont, CA, UNITED STATES
Hillan, Kenneth J., San Francisco, CA, UNITED STATES
Kljavin, Ivar J., Lafayette, CA, UNITED STATES
Mather, Jennie P., Millbrae, CA, UNITED STATES
Pan, James, Belmont, CA, UNITED STATES
Paoni, Nicholas F., Belmont, CA, UNITED STATES
Roy, Margaret Ann, San Francisco, CA, UNITED STATES
Stewart, Timothy A., San Francisco, CA, UNITED STATES
Tumas, Daniel, Orinda, CA, UNITED STATES
Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
Wood, William I., Hillsborough, CA, UNITED STATES
PATENT ASSIGNEE(S): Genentech, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002192659	A1	20021219
APPLICATION INFO.:	US 2001-902853	A1	20010710 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000302
	WO 2000-US7377	20000320

WO 2000-US8439	20000330
WO 2000-US14042	20000522
WO 2000-US15264	20000602
WO 2000-US20710	20000728
WO 2000-US23328	20000824
US 1997-59115P	19970917 (60)
US 1997-59184P	19970917 (60)
US 1997-59122P	19970917 (60)
US 1997-59117P	19970917 (60)
US 1997-59113P	19970917 (60)
US 1997-59121P	19970917 (60)
US 1997-59119P	19970917 (60)
US 1997-59263P	19970918 (60)
US 1997-59266P	19970918 (60)
US 1997-62125P	19971015 (60)
US 1997-62287P	19971017 (60)
US 1997-62285P	19971017 (60)
US 1997-63486P	19971021 (60)
US 1997-62816P	19971024 (60)
US 1997-62814P	19971024 (60)
US 1997-63127P	19971024 (60)
US 1997-63120P	19971024 (60)
US 1997-63121P	19971024 (60)
US 1997-63045P	19971024 (60)
US 1997-63128P	19971024 (60)
US 1997-63329P	19971027 (60)
US 1997-63327P	19971027 (60)
US 1997-63549P	19971028 (60)
US 1997-63541P	19971028 (60)
US 1997-63550P	19971028 (60)
US 1997-63542P	19971028 (60)
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US 1997-63564P	19971028 (60)
US 1997-63734P	19971029 (60)
US 1997-63738P	19971029 (60)
US 1997-63704P	19971029 (60)
US 1997-63435P	19971029 (60)
US 1997-64215P	19971029 (60)
US 1997-63735P	19971029 (60)
US 1997-63732P	19971029 (60)
US 1997-64103P	19971031 (60)
US 1997-63870P	19971031 (60)
US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
US 1997-65186P	19971112 (60)
US 1997-65846P	19971117 (60)
US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21726
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 9 OF 44 USPATFULL

TI Peptide scaffold encapsulation of tissue cells and uses thereof

AB The invention features peptide scaffolds that are useful in the repair and replacement of various tissues. The invention also provides methods for making these scaffolds and methods for using them.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:287608 USPATFULL

TITLE: Peptide scaffold encapsulation of tissue cells and uses thereof

INVENTOR(S): Kisiday, John, Watertown, MA, UNITED STATES
Grodzinsky, Alan, Lexington, MA, UNITED STATES
Zhang, Shuguang, Lexington, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002160471	A1	20021031
APPLICATION INFO.:	US 2001-778200	A1	20010206 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Page(s)		
LINE COUNT:	1010		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 10 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:287511 USPATFULL

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Filvaroff, Ellen, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES
Goddard, Audrey, San Francisco, CA, UNITED STATES
Godowski, Paul J., Burlingame, CA, UNITED STATES
Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
Gurney, Austin L., Belmont, CA, UNITED STATES
Hillan, Kenneth J., San Francisco, CA, UNITED STATES
Kljavin, Ivar J., Lafayette, CA, UNITED STATES
Mather, Jennie P., Millbrae, CA, UNITED STATES
Pan, James, Belmont, CA, UNITED STATES
Paoni, Nicholas F., Belmont, CA, UNITED STATES
Roy, Margaret Ann, San Francisco, CA, UNITED STATES

Stewart, Timothy A., San Francisco, CA, UNITED STATES
Tumas, Daniel, Orinda, CA, UNITED STATES
Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
Wood, William I., Hillsborough, CA, UNITED STATES
Genentech, Inc. (U.S. corporation)

PATENT ASSIGNEE(S):

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002160374	A1	20021031
APPLICATION INFO.:	US 2001-905291	A1	20010712 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000302
	WO 2000-US7377	20000320
	WO 2000-US8439	20000330
	WO 2000-US14042	20000522
	WO 2000-US15264	20000602
	WO 2000-US20710	20000728
	WO 2000-US23328	20000824
	US 1997-59115P	19970917 (60)
	US 1997-59184P	19970917 (60)
	US 1997-59122P	19970917 (60)
	US 1997-59117P	19970917 (60)
	US 1997-59113P	19970917 (60)
	US 1997-59121P	19970917 (60)
	US 1997-59119P	19970917 (60)
	US 1997-59263P	19970918 (60)
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	US 1997-62287P	19971017 (60)
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	US 1997-63120P	19971024 (60)
	US 1997-63121P	19971024 (60)
	US 1997-63045P	19971024 (60)
	US 1997-63128P	19971024 (60)

US 1997-63329P	19971027 (60)
US 1997-63327P	19971027 (60)
US 1997-63549P	19971028 (60)
US 1997-63541P	19971028 (60)
US 1997-63550P	19971028 (60)
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US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
US 1997-65186P	19971112 (60)
US 1997-65846P	19971117 (60)
US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21310
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 11 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:265833 USPATFULL

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Filvaroff, Ellen, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES

Goddard, Audrey, San Francisco, CA, UNITED STATES
 Godowski, Paul J., Burlingame, CA, UNITED STATES
 Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
 Gurney, Austin L., Belmont, CA, UNITED STATES
 Hillan, Kenneth J., San Francisco, CA, UNITED STATES
 Kljavin, Ivar J., Lafayette, CA, UNITED STATES
 Mather, Jennie P., Millbrae, CA, UNITED STATES
 Pan, James, Belmont, CA, UNITED STATES
 Paoni, Nicholas F., Belmont, CA, UNITED STATES
 Roy, Margaret Ann, San Francisco, CA, UNITED STATES
 Stewart, Timothy A., San Francisco, CA, UNITED STATES
 Tumas, Daniel, Orinda, CA, UNITED STATES
 Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
 Wood, William I., Hillsborough, CA, UNITED STATES
 Genentech, Inc. (U.S. corporation)

PATENT ASSIGNEE(S):

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002146709	A1	20021010
APPLICATION INFO.:	US 2001-909088	A1	20010718 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000302
	WO 2000-US7377	20000320
	WO 2000-US8439	20000330
	WO 2000-US14042	20000522
	WO 2000-US15264	20000602
	WO 2000-US20710	20000728
	WO 2000-US23328	20000824
	US 1997-59115P	19970917 (60)
	US 1997-59184P	19970917 (60)
	US 1997-59122P	19970917 (60)
	US 1997-59117P	19970917 (60)
	US 1997-59113P	19970917 (60)
	US 1997-59121P	19970917 (60)
	US 1997-59119P	19970917 (60)
	US 1997-59263P	19970918 (60)
	US 1997-59266P	19970918 (60)

US 1997-62125P	19971015 (60)
US 1997-62287P	19971017 (60)
US 1997-62285P	19971017 (60)
US 1997-63486P	19971021 (60)
US 1997-62816P	19971024 (60)
US 1997-62814P	19971024 (60)
US 1997-63127P	19971024 (60)
US 1997-63120P	19971024 (60)
US 1997-63121P	19971024 (60)
US 1997-63045P	19971024 (60)
US 1997-63128P	19971024 (60)
US 1997-63329P	19971027 (60)
US 1997-63327P	19971027 (60)
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US 1997-63541P	19971028 (60)
US 1997-63550P	19971028 (60)
US 1997-63542P	19971028 (60)
US 1997-63544P	19971028 (60)
US 1997-63564P	19971028 (60)
US 1997-63734P	19971029 (60)
US 1997-63738P	19971029 (60)
US 1997-63704P	19971029 (60)
US 1997-63435P	19971029 (60)
US 1997-64215P	19971029 (60)
US 1997-63735P	19971029 (60)
US 1997-63732P	19971029 (60)
US 1997-64103P	19971031 (60)
US 1997-63870P	19971031 (60)
US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
US 1997-65186P	19971112 (60)
US 1997-65846P	19971117 (60)
US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21668
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 12 OF 44 USPATFULL
TI **Bone morphogenic protein (BMP)**
polynucleotides, polypeptides, and antibodies
AB The present invention relates to novel human BMP polypeptides and isolated nucleic acids containing the coding regions of the genes encoding such polypeptides. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human BMP polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human BMP polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:259593 USPATFULL
TITLE: **Bone morphogenic protein**

INVENTOR(S) : (BMP) polynucleotides, polypeptides, and antibodies
 Ni, Jian, Germantown, MD, UNITED STATES
 Ruben, Steven M., Olney, MD, UNITED STATES
 Shi, Yanggu, Gaithersburg, MD, UNITED STATES
 PATENT ASSIGNEE(S) : Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002143170	A1	20021003
APPLICATION INFO.:	US 2002-67422	A1	20020207 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-685899, filed on 11 Oct 2000, PENDING Continuation-in-part of Ser. No. WO 2000-US9028, filed on 6 Apr 2000, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-130693P	19990423 (60)
	US 1999-131672P	19990429 (60)
	US 1999-147020P	19990803 (60)
	US 1999-152933P	19990909 (60)

DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
 NUMBER OF CLAIMS: 22
 EXEMPLARY CLAIM: 1
 LINE COUNT: 10845
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 13 OF 44 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:243054 USPATFULL

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

INVENTOR(S) : Ashkenazi, Avi, San Mateo, CA, UNITED STATES
 Botstein, David, Belmont, CA, UNITED STATES
 Desnoyers, Luc, San Francisco, CA, UNITED STATES
 Eaton, Dan L., San Rafael, CA, UNITED STATES
 Ferrara, Napoleone, San Francisco, CA, UNITED STATES
 Filvaroff, Ellen, San Francisco, CA, UNITED STATES
 Fong, Sherman, Alameda, CA, UNITED STATES
 Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
 Gerber, Hanspeter, San Francisco, CA, UNITED STATES
 Gerritsen, Mary E., San Mateo, CA, UNITED STATES
 Goddard, Audrey, San Francisco, CA, UNITED STATES
 Godowski, Paul J., Burlingame, CA, UNITED STATES
 Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
 Gurney, Austin L., Belmont, CA, UNITED STATES
 Hillan, Kenneth J., San Francisco, CA, UNITED STATES
 Kljavin, Ivar J., Lafayette, CA, UNITED STATES
 Mather, Jennie P., Millbrae, CA, UNITED STATES
 Pan, James, Belmont, CA, UNITED STATES

Paoni, Nicholas F., Belmont, CA, UNITED STATES
 Roy, Margaret Ann, San Francisco, CA, UNITED STATES
 Stewart, Timothy A., San Francisco, CA, UNITED STATES
 Tumas, Daniel, Orinda, CA, UNITED STATES
 Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
 Wood, William I., Hillsborough, CA, UNITED STATES
 Genentech, Inc. (U.S. corporation)

PATENT ASSIGNEE(S) :

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002132240	A1	20020919
APPLICATION INFO.:	US 2001-909320	A1	20010718 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000302
	WO 2000-US7377	20000320
	WO 2000-US8439	20000330
	WO 2000-US14042	20000522
	WO 2000-US15264	20000602
	WO 2000-US20710	20000728
	WO 2000-US23328	20000824
	US 1997-59115P	19970917 (60)
	US 1997-59184P	19970917 (60)
	US 1997-59122P	19970917 (60)
	US 1997-59117P	19970917 (60)
	US 1997-59113P	19970917 (60)
	US 1997-59121P	19970917 (60)
	US 1997-59119P	19970917 (60)
	US 1997-59263P	19970918 (60)
	US 1997-59266P	19970918 (60)
	US 1997-62125P	19971015 (60)
	US 1997-62287P	19971017 (60)
	US 1997-62285P	19971017 (60)
	US 1997-63486P	19971021 (60)
	US 1997-62816P	19971024 (60)
	US 1997-62814P	19971024 (60)
	US 1997-63127P	19971024 (60)
	US 1997-63120P	19971024 (60)
	US 1997-63121P	19971024 (60)

US 1997-63045P	19971024 (60)
US 1997-63128P	19971024 (60)
US 1997-63329P	19971027 (60)
US 1997-63327P	19971027 (60)
US 1997-63549P	19971028 (60)
US 1997-63541P	19971028 (60)
US 1997-63550P	19971028 (60)
US 1997-63542P	19971028 (60)
US 1997-63544P	19971028 (60)
US 1997-63564P	19971028 (60)
US 1997-63734P	19971029 (60)
US 1997-63738P	19971029 (60)
US 1997-63704P	19971029 (60)
US 1997-63435P	19971029 (60)
US 1997-64215P	19971029 (60)
US 1997-63735P	19971029 (60)
US 1997-63732P	19971029 (60)
US 1997-64103P	19971031 (60)
US 1997-63870P	19971031 (60)
US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
US 1997-65186P	19971112 (60)
US 1997-65846P	19971117 (60)
US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 14 OF 44 USPATFULL
TI Use of adipose tissue-derived stromal cells for chondrocyte differentiation and cartilage repair
AB Methods and compositions for directing adipose-derived stromal cells cultivated in vitro to differentiate into cells of the chondrocyte lineage are disclosed. The invention further provides a variety of chondroinductive agents which can be used singly or in combination with other nutrient components to induce chondrogenesis in adipose-derived stromal cells either in cultivating monolayers or in a biocompatible lattice or matrix in a three-dimensional configuration. Use of the differentiated chondrocytes for the therapeutic treatment of a number of human conditions and diseases including repair of cartilage in vivo is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:214259 USPATFULL
TITLE: Use of adipose tissue-derived stromal cells for chondrocyte differentiation and cartilage repair
INVENTOR(S): Halvorsen, Yuan-Di C., Holly Springs, NC, UNITED STATES
Wilkison, William O., Bahama, NC, UNITED STATES
Gimble, Jeffrey Martin, Chapel Hill, NC, UNITED STATES

NUMBER	KIND	DATE
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PATENT INFORMATION: US 2002115647 A1 20020822
APPLICATION INFO.: US 2002-125106 A1 20020418 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-573989, filed on 17
May 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-149850P	19990819 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KING & SPALDING, 191 PEACHTREE STREET, N.E., ATLANTA, GA, 30303-1763	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	831	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L9 ANSWER 15 OF 44 USPATFULL

TI Use of adipose tissue-derived stromal cells for chondrocyte
differentiation and cartilage repair

AB Methods and compositions for directing adipose-derived stromal cells
cultivated in vitro to differentiate into cells of the chondrocyte
lineage are disclosed. The invention further provides a variety of
chondroinductive agents which can be used singly or in combination with
other nutrient components to induce chondrogenesis in adipose-derived
stromal cells either in cultivating monolayers or in a biocompatible
lattice or matrix in a three-dimensional configuration. Use of the
differentiated chondrocytes for the therapeutic treatment of a number of
human conditions and diseases including repair of cartilage in vivo is
disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:194742 USPATFULL

TITLE: Use of adipose tissue-derived stromal cells for
chondrocyte differentiation and cartilage repair

INVENTOR(S): Halvorsen, Yuan-Di C., Holly Springs, NC, United States
Wilkison, William O., Bahama, NC, United States
Gimble, Jeffrey Martin, Chapel Hill, NC, United States

PATENT ASSIGNEE(S): Artec Science, Inc., Durham, NC, United States (U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6429013	B1	20020806
APPLICATION INFO.:	US 2000-573989		20000517 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-149850P	19990819 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Guzo, David	
ASSISTANT EXAMINER:	Davis, Katharine F	
LEGAL REPRESENTATIVE:	King & Spalding, Knowles, Sherry M., Bennett-Paris, Joseph	
NUMBER OF CLAIMS:	32	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	995	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

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NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	26	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	27	Oct 21	EVENTLINE has been reloaded
NEWS	28	Oct 24	BEILSTEIN adds new search fields
NEWS	29	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	30	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	31	Nov 18	DKILIT has been renamed APOLLIT
NEWS	32	Nov 25	More calculated properties added to REGISTRY
NEWS	33	Dec 02	TIBKAT will be removed from STN
NEWS	34	Dec 04	CSA files on STN
NEWS	35	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	36	Dec 17	TOXCENTER enhanced with additional content
NEWS	37	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	38	Dec 30	ISMEC no longer available
NEWS	39	Jan 13	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	EXPRESS		January 6 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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NEWS	INTER		General Internet Information
NEWS	LOGIN		Welcome Banner and News Items

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NEWS WWW CAS World Wide Web Site (general information)

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FULL ESTIMATED COST	0.42	0.42

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=> s bone morphogenic protein
L1 2316 BONE MORPHOGENIC PROTEIN

=> s articular cartilage
L2 26968 ARTICULAR CARTILAGE

=> s osteochondral graft
L3 125 OSTEOCHONDRAL GRAFT

=> s l1 () l2 () l3
L4 0 L1 (W) L2 (W) L3

=> s l1 and l2
L5 76 L1 AND L2

=> s l5 and l3
L6 1 L5 AND L3

=> d l6 ti abs ibib tot

L6 ANSWER 1 OF 1 USPATFULL

TI Device for regeneration of **articular cartilage** and other tissue

AB An implantable device for facilitating the healing of voids in bone, cartilage and soft tissue is disclosed. A preferred embodiment includes a cartilage region comprising a polyelectrolytic complex joined with a subchondral bone region. The cartilage region, of this embodiment, enhances the environment for chondrocytes to grow **articular cartilage**; while the subchondral bone region enhances the environment for cells which migrate into that region's macrostructure and which differentiate into osteoblasts. A hydrophobic barrier exists between said regions, of this embodiment. In one embodiment, the polyelectrolytic complex transforms to hydrogel, following the implant procedure.

ACCESSION NUMBER: 2002:55324 USPATFULL

TITLE: Device for regeneration of **articular cartilage** and other tissue

INVENTOR(S): Brekke, John H., Duluth, MN, UNITED STATES
Goldman, Scott M., Paoli, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002032488	A1	20020314
APPLICATION INFO.:	US 2001-909027	A1	20010719 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-206604, filed on 7 Dec 1998, GRANTED, Pat. No. US 6264701 Division of Ser. No. US 1994-242557, filed on 13 May 1994, GRANTED, Pat. No. US 5981825		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Alan D. Kamrath, Kensey Nash Corporation, 55 E. Uwchlan Avenue, Exton, PA, 19341		
NUMBER OF CLAIMS:	56		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1349		

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(FILE 'HOME' ENTERED AT 10:30:42 ON 15 JAN 2003)

FILE 'MEDLINE, DGENE, EMBASE, SCISEARCH, USPATFULL, WPIDS, JICST-EPLUS, FSTA' ENTERED AT 10:31:56 ON 15 JAN 2003

L1 2316 S BONE MORPHOGENIC PROTEIN
L2 26968 S ARTICULAR CARTILAGE
L3 125 S OSTEOCHONDRAL GRAFT
L4 0 S L1 () L2 () L3
L5 76 S L1 AND L2
L6 1 S L5 AND L3

=> s l3 and l1

L7 1 L3 AND L1

=> d l7 ti abs ibib tot

L7 ANSWER 1 OF 1 USPATFULL

TI Device for regeneration of articular cartilage and other tissue

AB An implantable device for facilitating the healing of voids in bone, cartilage and soft tissue is disclosed. A preferred embodiment includes a cartilage region comprising a polyelectrolytic complex joined with a

subchondral bone region. The cartilage region, of this embodiment, enhances the environment for chondrocytes to grow articular cartilage; while the subchondral bone region enhances the environment for cells which migrate into that region's macrostructure and which differentiate into osteoblasts. A hydrophobic barrier exists between said regions, of this embodiment. In one embodiment, the polyelectrolytic complex transforms to hydrogel, following the implant procedure.

ACCESSION NUMBER: 2002:55324 USPATFULL
 TITLE: Device for regeneration of articular cartilage and other tissue
 INVENTOR(S): Brekke, John H., Duluth, MN, UNITED STATES
 Goldman, Scott M., Paoli, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002032488	A1	20020314
APPLICATION INFO.:	US 2001-909027	A1	20010719 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-206604, filed on 7 Dec 1998, GRANTED, Pat. No. US 6264701 Division of Ser. No. US 1994-242557, filed on 13 May 1994, GRANTED, Pat. No. US 5981825		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Alan D. Kamrath, Kensey Nash Corporation, 55 E. Uwchlan Avenue, Exton, PA, 19341		
NUMBER OF CLAIMS:	56		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1349		

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(FILE 'HOME' ENTERED AT 10:30:42 ON 15 JAN 2003)

FILE 'MEDLINE, DGENE, EMBASE, SCISEARCH, USPATFULL, WPIDS, JICST-EPLUS, FSTA' ENTERED AT 10:31:56 ON 15 JAN 2003

L1 2316 S BONE MORPHOGENIC PROTEIN
 L2 26968 S ARTICULAR CARTILAGE
 L3 125 S OSTEOCHONDRAL GRAFT
 L4 0 S L1 () L2 () L3
 L5 76 S L1 AND L2
 L6 1 S L5 AND L3
 L7 1 S L3 AND L1

=> d l5 ti abs ibib 1-10

L5 ANSWER 1 OF 76 MEDLINE
 TI Long-term effect of nitric oxide synthase inhibitor on repair of **articular cartilage** defects repairing.
 AB OBJECTIVE: To discuss the long-term effect of inducible nitric oxide synthase inhibitor S-methylisothiourea (SMT) on repair of **articular cartilage** defects. METHODS: Twenty-four adult New Zealand White rabbits with full-thickness defects of cartilage created in the trochlear groove of their bilateral femurs were divided into three groups randomly, 8 in each group: (1) control group in which nothing was filled into the defects; (2) BMP group in which the defects were filled with collagen fibrin gel impregnated with recombinant human **bone morphogenic protein** (rhBMP); and (3) SMT group in which the defects were filled with collagen fibrin gel impregnated with rhBMP and hypodermic injection of SMT (5 mg .(-1) 12 h(-1)) was given. The animals were killed one year later. The gross appearance of the defects was assessed. The amount of released NO and the activity of NOS were examined by chemical colorimetry. The distribution of collagen was

examined by immunohistochemistry. The proteoglycan synthesis and cell activity was assessed by incorporation of radiolabelled sodium sulphate $\text{Na}(2)(35)\text{SO}(4)$ and bromodeoxyuridine. RESULTS: One year after the defects in SMT group showed greater improvement in margin integration, cellular morphology, and architecture within defect than those in BMP group and control group ($P < 0.01$). Immunohistochemistry showed that there was less type-I collagen and more type-II collagen in SMT group than in the other two groups. Radiolabelled sodium sulphate ($\text{Na}(2)(35)\text{SO}(4)$) incorporation test showed that the proteoglycan synthesis in defects was higher in SMT group than in the other two groups ($P < 0.01$). BrdU incorporation test showed cells in repaired tissue with remarkable proliferous activity. CONCLUSION: iNOS inhibitor SMT significantly improves the quality of repair of defected cartilage and delays its degradation.

ACCESSION NUMBER: 2002215446 MEDLINE
DOCUMENT NUMBER: 21951165 PubMed ID: 11953121
TITLE: Long-term effect of nitric oxide synthase inhibitor on repair of **articular cartilage** defects repairing.
AUTHOR: Sun Wei; Wang Jixing; Jin Dadi; Liu Xiaoxia
CORPORATE SOURCE: Department of Orthopaedics Surgery, Nanfang Hospital Affiliated to First Military Medical University, Guangzhou 510515, China.
SOURCE: CHUNG-HUA I HSUEH TSA CHIH [CHINESE MEDICAL JOURNAL], (2002 Jan 10) 82 (1) 23-6.
Journal code: 7511141. ISSN: 0376-2491.
PUB. COUNTRY: China
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 20020416
Last Updated on STN: 20020515
Entered Medline: 20020514

L5 ANSWER 2 OF 76 MEDLINE
TI Enhanced matrix synthesis and in vitro formation of cartilage-like tissue by genetically modified chondrocytes expressing BMP-7.
AB **Bone morphogenic protein-7** (BMP-7) supports ectopic cartilage and bone formation, is expressed in normal **articular cartilage**, and increases matrix synthesis in chondrocytes. Based on this knowledge, we hypothesized that an adenovirus (Ad) vector encoding human BMP-7 could be used to modify chondrocytes genetically to improve their capacity for cartilage repair. An adenovirus vector encoding BMP-7 (AdBMP-7) was constructed and its bioactivity confirmed by ectopic bone formation assay. AdBMP-7 modification of bovine chondrocytes induced expression of BMP-7 mRNA and bioactive protein, resulting in an increase in incorporation of $^{35}\text{SO}_4$ - into proteoglycan, ^3H -proline uptake into protein, and the expression of the cartilage-specific matrix genes, aggrecan and type II collagen. An in vitro model of chondrocyte transplantation was used to demonstrate the feasibility of using genetically modified chondrocytes to enhance formation of cartilage-like tissue. When transplanted onto cartilage explants and maintained in vitro for 3 weeks, chondrocytes modified with AdBMP-7 formed 1.9-fold thicker tissue than chondrocytes modified with a control vector ($P < 0.001$). This tissue was positive for type II collagen and proteoglycan but negative for type X collagen and demonstrated a cartilage-like morphology. These observations suggest that Ad-mediated transfer of BMP-7 gene to chondrocytes enhances the chondrocyte-specific matrix synthesis and their capacity to form cartilage-like tissue, thus representing a strategy that may improve cell-based cartilage repair.

ACCESSION NUMBER: 2001514436 MEDLINE
DOCUMENT NUMBER: 21446023 PubMed ID: 11562118
TITLE: Enhanced matrix synthesis and in vitro formation of cartilage-like tissue by genetically modified chondrocytes

expressing BMP-7.

AUTHOR: Hidaka C; Quitariano M; Warren R F; Crystal R G
 CORPORATE SOURCE: Division of Pulmonary and Critical Care Medicine, Weill
 Medical College of Cornell University, New York, NY, USA..
 geneticmedicine@mail.med.cornell.edu

CONTRACT NUMBER: T32-AR07281 (NIAMS)
 SOURCE: JOURNAL OF ORTHOPAEDIC RESEARCH, (2001 Sep) 19 (5) 751-8.
 Journal code: 8404726. ISSN: 0736-0266.

PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200110
 ENTRY DATE: Entered STN: 20010920
 Last Updated on STN: 20011008
 Entered Medline: 20011004

L5 ANSWER 3 OF 76 MEDLINE
 TI Cartilage and bone regeneration using gene-enhanced tissue engineering.
 AB Joint cartilage injury remains a major problem in orthopaedics with more
 than 500,000 cartilage repair procedures performed yearly in the United
 States at a cost of hundreds of millions of dollars. No consistently
 reliable means to regenerate joint cartilage currently exists. The
 technologies of gene therapy and tissue engineering were combined using a
 retroviral vector to stably introduce the human **bone
 morphogenic protein-7** complementary deoxyribonucleic
 acid into periosteal-derived rabbit mesenchymal stem cells. **Bone
 morphogenic protein-7** secreting gene modified cells
 subsequently were expanded in monolayer culture, seeded onto polyglycolic
 acid grafts, implanted into a rabbit knee osteochondral defect model, and
 evaluated for bone and cartilage repair after 4, 8, and 12 weeks. The
 grafts containing **bone morphogenic protein-7**
 gene modified cells consistently showed complete or near complete bone and
articular cartilage regeneration at 8 and 12 weeks
 whereas the grafts from the control groups had poor repair as judged by
 macroscopic, histologic, and immunohistologic criteria. This is the first
 report of **articular cartilage** regeneration using a
 combined gene therapy and tissue engineering approach.

ACCESSION NUMBER: 2000488818 MEDLINE
 DOCUMENT NUMBER: 20492911 PubMed ID: 11039767
 TITLE: Cartilage and bone regeneration using gene-enhanced tissue
 engineering.
 AUTHOR: Mason J M; Breitbart A S; Barcia M; Porti D; Pergolizzi R
 G; Grande D A
 CORPORATE SOURCE: Department of Research, North Shore University Hospital-New
 York University School of Medicine, Manhasset 11030, USA.
 SOURCE: CLINICAL ORTHOPAEDICS AND RELATED RESEARCH, (2000 Oct) (379
 Suppl) S171-8.
 Journal code: 0075674. ISSN: 0009-921X.

PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
 ENTRY MONTH: 200011
 ENTRY DATE: Entered STN: 20010322
 Last Updated on STN: 20010322
 Entered Medline: 20001103

L5 ANSWER 4 OF 76 DGENE (C) 2003 THOMSON DERWENT
 TI Isolated DNA encoding human SDF-5 protein - useful for controlling
 growth, differentiation etc. of cells, particularly of chondrocytes for
 treatment of arthritis etc., also pancreatic cells
 AN AAW49082 Protein DGENE
 AB The sequence is that of human SDF-5, a member of the Frazzled protein

family. Cells transformed with a vector containing the sequence are used to regulate genes, particularly pancreatic genes, or in combination with **bone morphogenic protein 2 (BMP2)**, to increase differentiation of progenitor cells into chondrocytes. The protein may be used to treat osteoarthritis, rheumatoid arthritis, or **articular cartilage** defects, also to increase/inhibit cell formation, growth, differentiation, proliferation and/or maintenance in many other organs or tissues, e.g. for prevention or treatment of pancreatic cancer, diabetes (by inducing de novo formation of islet cells), other tissue defects, also to improve healing of wounds and to increase survival of nervous system cells, e.g. in cases of transplants. The coding sequence can be used in gene therapy, and its fragments to detect related mRNA, while the protein is also used to generate antibodies, useful for affinity purification and as immunoassay reagents. Many other potential uses/activities for the gene and its encoded are contemplated but not exemplified, e.g. as cytokines, immuno-suppressants or immunostimulants, regulators of haematopoiesis, as fertility-control agents, haemostatic or thrombolytic agents, anti-inflammatory agents, antimicrobials, modulators of biorhythms and many more.

ACCESSION NUMBER: AAW49082 Protein DGENE

TITLE: Isolated DNA encoding human SDF-5 protein - useful for controlling growth, differentiation etc. of cells, particularly of chondrocytes for treatment of arthritis etc., also pancreatic cells

INVENTOR: Lavallie E R; Racie L A

PATENT ASSIGNEE: (GEMY)GENETICS INST INC.

PATENT INFO: WO 9835043 A1 19980813 69p

APPLICATION INFO: WO 1997-US18369 19971015

PRIORITY INFO: US 1997-848439 19970508

US 1997-796153 19970206

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 1998-447240 [38]

L5 ANSWER 5 OF 76 DGENE (C) 2003 THOMSON DERWENT

TI Isolated DNA encoding human SDF-5 protein - useful for controlling growth, differentiation etc. of cells, particularly of chondrocytes for treatment of arthritis etc., also pancreatic cells

AN AAV32930 DNA DGENE

AB The sequence is that encoding human SDF-5, a member of the Frazzled protein family. Cells transformed with a vector containing the sequence are used to regulate genes, particularly pancreatic genes, or in combination with **bone morphogenic protein 2 (BMP2)**, to increase differentiation of progenitor cells into chondrocytes. The protein may be used to treat osteoarthritis, rheumatoid arthritis, or **articular cartilage** defects, also to increase/inhibit cell formation, growth, differentiation, proliferation and/or maintenance in many other organs or tissues, e.g. for prevention or treatment of pancreatic cancer, diabetes (by inducing de novo formation of islet cells), other tissue defects, also to improve healing of wounds and to increase survival of nervous system cells, e.g. in cases of transplants. The coding sequence can be used in gene therapy, and its fragments to detect related mRNA, while the protein is also used to generate antibodies, useful for affinity purification and as immunoassay reagents. Many other potential uses/activities for the gene and its encoded are contemplated but not exemplified, e.g. as cytokines, immuno-suppressants or immunostimulants, regulators of haematopoiesis, as fertility-control agents, haemostatic or thrombolytic agents, anti-inflammatory agents, antimicrobials, modulators of biorhythms and many more.

ACCESSION NUMBER: AAV32930 DNA DGENE

TITLE: Isolated DNA encoding human SDF-5 protein - useful for controlling growth, differentiation etc. of cells, particularly of chondrocytes for treatment of arthritis etc.,

also pancreatic cells
 INVENTOR: Lavallie E R; Racie L A
 PATENT ASSIGNEE: (GEMY)GENETICS INST INC.
 PATENT INFO: WO 9835043 A1 19980813 69p
 APPLICATION INFO: WO 1997-US18369 19971015
 PRIORITY INFO: US 1997-848439 19970508
 US 1997-796153 19970206
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 OTHER SOURCE: 1998-447240 [38]

L5 ANSWER 6 OF 76 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
 TI Enhanced matrix synthesis and in vitro formation of cartilage-like tissue
 by genetically modified chondrocytes expressing BMP-7.
 AB **Bone morphogenic protein-7 (BMP-7)** supports
 ectopic cartilage and bone formation, is expressed in normal
articular cartilage, and increases matrix synthesis in
 chondrocytes. Based on this knowledge, we hypothesized that an adenovirus
 (Ad) vector encoding human BMP-7 could be used to modify chondrocytes
 genetically to improve their capacity for cartilage repair. An adenovirus
 vector encoding BMP-7 (AdBMP-7) was constructed and its bioactivity
 confirmed by ectopic bone formation assay. AdBMP-7 modification of bovine
 chondrocytes induced expression of BMP-7 mRNA and bioactive protein,
 resulting in an increase in incorporation of (35)SO(-)(4) into
 proteoglycan, (3)H-proline uptake into protein, and the expression of the
 cartilage-specific matrix genes, aggrecan and type II collagen. An in
 vitro model of chondrocyte transplantation was used to demonstrate the
 feasibility of using genetically modified chondrocytes to enhance
 formation of cartilage-like tissue. When transplanted onto cartilage
 explants and maintained in vitro for 3 weeks, chondrocytes modified with
 AdBMP-7 formed 1.9-fold thicker tissue than chondrocytes modified with a
 control vector (P < 0.001). This tissue was positive for type II collagen
 and proteoglycan but negative for type X collagen and demonstrated a
 cartilage-like morphology. These observations suggest that Ad-mediated
 transfer of BMP-7 gene to chondrocytes enhances the chondrocyte-specific
 matrix synthesis and their capacity to form cartilage-like tissue, thus
 representing a strategy that may improve cell-based cartilage repair.
 .COPYRGHT. 2001. Orthopaedic Research Society. Published by Elsevier
 Science Ltd. All rights reserved.

ACCESSION NUMBER: 2001305182 EMBASE
 TITLE: Enhanced matrix synthesis and in vitro formation of
 cartilage-like tissue by genetically modified chondrocytes
 expressing BMP-7.
 AUTHOR: Hidaka C.; Quitoriano M.; Warren R.F.; Crystal R.G.
 CORPORATE SOURCE: C. Hidaka, Institute of Genetic Medicine, Weill Medical
 Coll. of Cornell Univ., New York, NY 10021, United States.
 geneticmedicine@mail.med.cornell.edu
 SOURCE: Journal of Orthopaedic Research, (2001) 19/5 (751-758).
 Refs: 40
 ISSN: 0736-0266 CODEN: JOREDR
 PUBLISHER IDENT.: S 0736-0266(01)00019-5
 COUNTRY: United Kingdom
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 004 Microbiology
 022 Human Genetics
 029 Clinical Biochemistry
 033 Orthopedic Surgery
 LANGUAGE: English
 SUMMARY LANGUAGE: English

L5 ANSWER 7 OF 76 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
 TI Cartilage and bone regeneration using gene-enhanced tissue engineering.
 AB Joint cartilage injury remains a major problem in orthopaedics with more
 than 500,000 cartilage repair procedures performed yearly in the United

States at a cost of hundreds of millions of dollars. No consistently reliable means to regenerate joint cartilage currently exists. The technologies of gene therapy and tissue engineering were combined using a retroviral vector to stably introduce the human **bone morphogenetic protein-7** complementary deoxyribonucleic acid into periosteal-derived rabbit mesenchymal stem cells. **Bone morphogenetic protein-7** secreting gene modified cells subsequently were expanded in monolayer culture, seeded onto polyglycolic acid grafts, implanted into a rabbit knee osteochondral defect model, and evaluated for bone and cartilage repair after 4, 8, and 12 weeks. The grafts containing **bone morphogenetic protein-7** gene modified cells consistently showed complete or near complete bone and **articular cartilage** regeneration at 8 and 12 weeks whereas the grafts from the control groups had poor repair as judged by macroscopic, histologic, and immunohistologic criteria. This is the first report of **articular cartilage** regeneration using a combined gene therapy and tissue engineering approach.

ACCESSION NUMBER: 2000362559 EMBASE
 TITLE: Cartilage and bone regeneration using gene-enhanced tissue engineering.
 AUTHOR: Mason J.M.; Breitbart A.S.; Barcia M.; Porti D.; Pergolizzi R.G.; Grande D.A.
 CORPORATE SOURCE: Dr. J.M. Mason, Gene Therapy Vector Laboratory, Department of Research, North Shore University Hospital, 350 Community Drive, Manhasset, NY 11030, United States
 SOURCE: Clinical Orthopaedics and Related Research, (2000) -/379 SUPPL. (S171-S178).
 Refs: 27
 ISSN: 0009-921X CODEN: CORTBR
 COUNTRY: United States
 DOCUMENT TYPE: Journal; Conference Article
 FILE SEGMENT: 022 Human Genetics
 033 Orthopedic Surgery
 036 Health Policy, Economics and Management
 LANGUAGE: English
 SUMMARY LANGUAGE: English

L5 ANSWER 8 OF 76 SCISEARCH COPYRIGHT 2003 ISI (R)

TI Cartilage and bone regeneration using gene-enhanced tissue engineering
 AB Joint cartilage injury remains a major problem in orthopaedics with more than 500,000 cartilage repair procedures performed yearly in the United States at a cost of hundreds of millions of dollars. No consistently reliable means to regenerate joint cartilage currently exists. The technologies of gene therapy and tissue engineering were combined using a retroviral vector to stably introduce the human **bone morphogenetic protein-7** complementary deoxyribonucleic acid into periosteal-derived rabbit mesenchymal stem cells. **Bone morphogenetic protein-7** secreting gene modified cells subsequently were expanded in monolayer culture, seeded onto polyglycolic acid grafts, implanted into a rabbit knee osteochondral defect model, and evaluated for bone and cartilage repair after 4, 8, and 12 weeks. The grafts containing **bone morphogenetic protein-7** gene modified cells consistently showed complete or near complete bone and **articular cartilage** regeneration at 8 and 12 weeks whereas the grafts from the control groups had poor repair as judged by macroscopic, histologic, and immunohistologic criteria. This is the first report of **articular cartilage** regeneration using a combined gene therapy and tissue engineering approach.

ACCESSION NUMBER: 2000:777821 SCISEARCH
 THE GENUINE ARTICLE: 362NP
 TITLE: Cartilage and bone regeneration using gene-enhanced tissue engineering
 AUTHOR: Mason J M (Reprint); Breitbart A S; Barcia M; Porti D; Pergolizzi R G; Grande D A

CORPORATE SOURCE: NYU, GENE THERAPY VECTOR LAB, DEPT RES, N SHORE UNIV HOSP, SCH MED, 350 COMMUNITY DR, MANHASSET, NY 11030 (Reprint); NYU, DIV PLAST & RECONSTRUCT SURG, SCH MED, N SHORE UNIV HOSP, MANHASSET, NY 11030; NYU, DIV ORTHOPED SURG, SCH MED, N SHORE UNIV HOSP, DEPT SURG, MANHASSET, NY 11030

COUNTRY OF AUTHOR: USA

SOURCE: CLINICAL ORTHOPAEDICS AND RELATED RESEARCH, (OCT 2000) No. 379, Supp. [S], pp. S171-S178.
 Publisher: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621.
 ISSN: 0009-921X.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE; CLIN

LANGUAGE: English

REFERENCE COUNT: 27

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L5 ANSWER 9 OF 76 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same

AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:3495 USPATFULL

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
 Botstein, David, Belmont, CA, UNITED STATES
 Desnoyers, Luc, San Francisco, CA, UNITED STATES
 Eaton, Dan L., San Rafael, CA, UNITED STATES
 Ferrara, Napoleone, San Francisco, CA, UNITED STATES
 Filvaroff, Ellen, San Francisco, CA, UNITED STATES
 Fong, Sherman, Alameda, CA, UNITED STATES
 Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
 Gerber, Hanspeter, San Francisco, CA, UNITED STATES
 Gerritsen, Mary E., San Mateo, CA, UNITED STATES
 Goddard, Audrey, San Francisco, CA, UNITED STATES
 Godowski, Paul J., Burlingame, CA, UNITED STATES
 Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
 Gurney, Austin L., Belmont, CA, UNITED STATES
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 Kljavin, Ivar J., Lafayette, CA, UNITED STATES
 Mather, Jennie P., Millbrae, CA, UNITED STATES
 Pan, James, Belmont, CA, UNITED STATES
 Paoni, Nicholas F., Belmont, CA, UNITED STATES
 Roy, Margaret Ann, San Francisco, CA, UNITED STATES
 Stewart, Timothy A., San Francisco, CA, UNITED STATES
 Tumas, Daniel, Orinda, CA, UNITED STATES
 Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
 Wood, William I., Hillsborough, CA, UNITED STATES

PATENT ASSIGNEE(S): Genentech, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003003530	A1	20030102
APPLICATION INFO.:	US 2001-904011	A1	20010711 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18		

Sep 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000302
	WO 2000-US7377	20000320
	WO 2000-US8439	20000330
	WO 2000-US14042	20000522
	WO 2000-US15264	20000602
	WO 2000-US20710	20000728
	WO 2000-US23328	20000824
	US 1997-59115P	19970917 (60)
	US 1997-59184P	19970917 (60)
	US 1997-59122P	19970917 (60)
	US 1997-59117P	19970917 (60)
	US 1997-59113P	19970917 (60)
	US 1997-59121P	19970917 (60)
	US 1997-59119P	19970917 (60)
	US 1997-59263P	19970918 (60)
	US 1997-59266P	19970918 (60)
	US 1997-62125P	19971015 (60)
	US 1997-62287P	19971017 (60)
	US 1997-62285P	19971017 (60)
	US 1997-63486P	19971021 (60)
	US 1997-62816P	19971024 (60)
	US 1997-62814P	19971024 (60)
	US 1997-63127P	19971024 (60)
	US 1997-63120P	19971024 (60)
	US 1997-63121P	19971024 (60)
	US 1997-63045P	19971024 (60)
	US 1997-63128P	19971024 (60)
	US 1997-63329P	19971027 (60)
	US 1997-63327P	19971027 (60)
	US 1997-63549P	19971028 (60)
	US 1997-63541P	19971028 (60)
	US 1997-63550P	19971028 (60)
	US 1997-63542P	19971028 (60)
	US 1997-63544P	19971028 (60)
	US 1997-63564P	19971028 (60)
	US 1997-63734P	19971029 (60)
	US 1997-63738P	19971029 (60)
	US 1997-63704P	19971029 (60)

US 1997-63435P	19971029 (60)
US 1997-64215P	19971029 (60)
US 1997-63735P	19971029 (60)
US 1997-63732P	19971029 (60)
US 1997-64103P	19971031 (60)
US 1997-63870P	19971031 (60)
US 1997-64248P	19971103 (60)
US 1997-64809P	19971107 (60)
US 1997-65186P	19971112 (60)
US 1997-65846P	19971117 (60)
US 1997-65693P	19971118 (60)
US 1997-66120P	19971121 (60)
US 1997-66364P	19971121 (60)
US 1997-66772P	19971124 (60)
US 1997-66466P	19971124 (60)
US 1997-66770P	19971124 (60)
US 1997-66511P	19971124 (60)
US 1997-66453P	19971124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 124 Drawing Page(s)
LINE COUNT: 21255
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 10 OF 76 USPATFULL

TI Secreted and transmembrane polypeptides and nucleic acids encoding the same
AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:344632 USPATFULL
TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same
INVENTOR(S): Ashkenazi, Avi, San Mateo, CA, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Filvaroff, Ellen, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gao, Wei-Qiang, Palo Alto, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES
Goddard, Audrey, San Francisco, CA, UNITED STATES
Godowski, Paul J., Burlingame, CA, UNITED STATES
Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
Gurney, Austin L., Belmont, CA, UNITED STATES
Hillan, Kenneth J., San Francisco, CA, UNITED STATES
Kljavin, Ivar J., Lafayette, CA, UNITED STATES
Mather, Jennie P., Millbrae, CA, UNITED STATES
Pan, James, Belmont, CA, UNITED STATES
Paoni, Nicholas F., Belmont, CA, UNITED STATES
Roy, Margaret Ann, San Francisco, CA, UNITED STATES

Stewart, Timothy A., San Francisco, CA, UNITED STATES
Tumas, Daniel, Orinda, CA, UNITED STATES
Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
Wood, William I., Hillsborough, CA, UNITED STATES
Genentech, Inc. (U.S. corporation)

PATENT ASSIGNEE(S):

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002198366	A1	20021226
APPLICATION INFO.:	US 2001-907841	A1	20010717 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-665350, filed on 18 Sep 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18824	19980910
	WO 1998-US19177	19980914
	WO 1998-US19330	19980916
	WO 1998-US19437	19980917
	WO 1998-US25108	19981201
	WO 1999-US20594	19990908
	WO 1999-US20944	19990913
	WO 1999-US21090	19990915
	WO 1999-US21547	19990915
	WO 1999-US23089	19991005
	WO 1999-US28214	19991129
	WO 1999-US28313	19991130
	WO 1999-US28301	19991201
	WO 1999-US28564	19991202
	WO 1999-US28565	19991202
	WO 1999-US30095	19991216
	WO 1999-US30999	19991220
	WO 1999-US30911	19991220
	WO 2000-US219	20000105
	WO 2000-US3565	20000211
	WO 2000-US4414	20000222
	WO 2000-US5004	20000224
	WO 2000-US5841	20000402
	WO 2000-US7377	20000320
	WO 2000-US8439	20000330
	WO 2000-US14042	20000522
	WO 2000-US15264	20000602
	WO 2000-US20710	20000728
	WO 2000-US23328	20000824
	US 1997-59115P	19970917 (60)
	US 1997-59184P	19970917 (60)
	US 1997-59122P	19970917 (60)
	US 1997-59117P	19970917 (60)
	US 1997-59113P	19970917 (60)
	US 1997-59121P	19970917 (60)
	US 1997-59119P	19970917 (60)
	US 1997-59263P	19970918 (60)
	US 1997-59266P	19970918 (60)
	US 1997-62125P	19971015 (60)
	US 1997-62287P	19971017 (60)
	US 1997-62285P	19971017 (60)
	US 1997-63486P	19971021 (60)
	US 1997-62816P	19971024 (60)
	US 1997-62814P	19971024 (60)
	US 1997-63127P	19971024 (60)
	US 1997-63120P	19971024 (60)
	US 1997-63121P	19971024 (60)
	US 1997-63045P	19971024 (60)
	US 1997-63128P	19971024 (60)

WEST

Generate Collection

L2: Entry 3 of 5

File: USPT

Feb 3, 1998

DOCUMENT-IDENTIFIER: US 5713374 A

TITLE: Fixation method for the attachment of wound repair materials to cartilage defects

BSPR:

Techniques were developed to utilize autologous tissue, such as transplantation of: 1) osteochondral grafts (DePalma, et al. 1963); 2) chondrocytes (Grande, et al. 1989); 3) periosteum (Homminga, et al., 1990); and 4) demineralized bone (Dahlberg and Kreichers, 1991). These techniques have been used to transplant whole or partial joints, with mixed results. For example, a number of investigators attempted to heal cartilage defects using chondrocytes isolated from epiphysial plates, as well as articular cells, with the hypothesis that these cells would have a greater chance of success due to their heightened metabolism (Itay, et al. 1987). Clinical studies using cultured cells reported excellent results, showing a significant decrease in pain and restoration of normal function after two to four years post-op (Iloika, et al. 1990; Ilomminga, et al. 1990).

WEST**End of Result Set**

Generate Collection

L2: Entry 5 of 5

File: USPT

Feb 10, 1987

DOCUMENT-IDENTIFIER: US 4642120 A
TITLE: Repair of cartilage and bones

BSPR:

When articular cartilage is damaged by trauma, infection or degenerative processes, such damages generally fail to heal or even improve. Hitherto various attempts have been made to resort to osteochondral grafts and to the provision of various forms of prosthesis, but long term results have been poor and discouraging. There have been reported attempts to use cultured chondrocytes as a source of cartilage transplants, but integration of the transplants with the neighboring cartilage was generally unsatisfactory.

5 22 6914

Pat it

L16 ANSWER 7 OF 8 MEDLINE
 ACCESSION NUMBER: 97270218 MEDLINE
 DOCUMENT NUMBER: 97270218
 TITLE:

DUPLICATE 4

**Regeneration of articular
 cartilage defects in rabbits by osteogenic
 protein-1 (bone morphogenetic
 protein-7).**

AUTHOR: Grgic M; Jelic M; Basic V; Basic N; Pecina M; Vukicevic S
 CORPORATE SOURCE: Drago Perovic Institute of Anatomy, School of Medicine,
 University of Zagreb, Croatia.
 SOURCE: ACTA MEDICA CROATICA, (1997) 51 (1) 23-7.
 Journal code: BH2. ISSN: 1330-0164.
 PUB. COUNTRY: Croatia
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 ENTRY MONTH: 199707

AB Osteogenic protein-1 (OP-1, **BMP-7**), a member of the transforming growth factor-beta family, induces cartilage and bone formation when implanted at intra and extraskeletal sites in vivo. The human OP-1 gene has been cloned and biologically active recombinant OP-1 homodimers have been produced. In the present study, the authors investigated the influence of OP-1 on healing of full-thickness **articular cartilage** defects, made by drilling two adjacent (phi 3mm) holes through **articular cartilage** of NZW rabbit knee joint were dissected and examined histomorphometrically. Results indicated that OP-1 induced **articular cartilage** healing and **regeneration** of the joint surface which contained cells resembling mature joint chondrocytes. These data imply a new strategy for biological repair of damaged joint surfaces in humans.

ILL

L17 ANSWER 2 OF 4 MEDLINE
 ACCESSION NUMBER: 93101749 MEDLINE
 DOCUMENT NUMBER: 93101749
 TITLE: Reconstruction of the bone--bone marrow organ by
 osteogenin, a bone morphogenetic protein, and
 demineralized bone matrix in calvarial defects of adult primates.
 AUTHOR: Ripamonti U; Ma S S; Cunningham N S; Yeates L; Reddi A H
 CORPORATE SOURCE: Medical Research Council/University of the Witwatersrand,
 Johannesburg, South Africa.
 SOURCE: PLASTIC AND RECONSTRUCTIVE SURGERY, (1993 Jan) 91 (1)
 27-36.
 Journal code: P9S. ISSN: 0032-1052.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
 ENTRY MONTH: 199303
 AB Information concerning the efficacy of osteogenin, a **bone morphogenetic protein**, and demineralized bone matrix in orthotopic sites in nonhuman primates is a prerequisite for potential clinical application in humans. After exposure of the calvaria, 84 cranial defects, 25 mm in diameter, were prepared in 26 adult male baboons (*Papio ursinus*). Defects were implanted with insoluble collagenous bone matrix (ICBM, the inactive collagenous residue after dissociative extraction of bone matrix with 4 M guanidine hydrochloride) reconstituted with osteogenin fractions isolated from baboon bone matrix by chromatography on heparin-Sepharose and hydroxyapatite-Ultrogel (Og Hep-HA) or osteogenin further purified using Sephacryl S-200 gel filtration chromatography (Og S-200). Baboon osteogenin with the highest biologic activity in a rodent bioassay, as determined by alkaline phosphatase activity, calcium content, and histologic analysis, was used for orthotopic implantation in baboons. Additional defects were implanted with baboon demineralized bone matrix (DBM) or ICBM without osteogenin as control. Defects also were **grafted** with corticocancellous bone harvested from the iliac crest or left ungrafted to monitor the spontaneous **regeneration** potential of the adult baboon calvaria. Undecalcified bone sections at 7 microns were prepared from the harvested specimens 30 and 90 days after surgery. Histomorphometry demonstrated that Og S-200 induced copious amounts of bone and osteoid as early as day 30 ($P < 0.01$ versus ICBM, autogenous **grafts** and untreated defects). At day 90, in implants of Og S-200, Og Hep-HA, and DBM, bone and marrow formation was extensive, culminating in complete **regeneration** of the craniotomies. In implants of DBM, bone formed with an intervening phase of **cartilage** development. This provides the phenotypic evidence of endochondral bone differentiation by induction in defects of membranous calvarial bone in adult primates. These results establish the potential therapeutic application of osteogenin and demineralized bone matrix for the architectural reconstruction of the bone-bone marrow organ in humans.

Gad J

L17 ANSWER 4 OF 4 MEDLINE
 ACCESSION NUMBER: 86278360 MEDLINE
 DOCUMENT NUMBER: 86278360
 TITLE: Bone repair induced by bone morphogenetic protein in ulnar defects in dogs.
 AUTHOR: Nilsson O S; Urist M R; Dawson E G; Schmalzried T P; Finerman G A
 SOURCE: JOURNAL OF BONE AND JOINT SURGERY. BRITISH VOLUME, (1986 Aug) 68 (4) 635-42.
 Journal code: HK7. ISSN: 0301-620X.
 PUB. COUNTRY: ENGLAND: United Kingdom
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
 ENTRY MONTH: 198611
 AB In dogs, resection of a length of the ulna equal to twice the diameter of the mid-shaft leaves a defect which consistently fails to unite. In response to an implant of 100 mg of bovine **bone morphogenetic protein (BMP)**, the defect becomes filled by callus consisting of fibrocartilage, **cartilage** and woven bone within four weeks. The **cartilage** is resorbed and replaced by new bone in four to eight weeks. Woven bone is then resorbed, colonised by bone marrow cells and remodelled into lamellar bone. Union of the defect is produced by 12 weeks. Control defects filled with autogeneic cortical bone chips unite after the same period. In **regeneration** induced by **bone morphogenetic protein (BMP)** and in repair enhanced by bone **graft**, union depends upon the proliferation of cells within and around the bone ends. Our working hypothesis is that **BMP** induces the differentiation of perivascular connective tissue cells into chondroblasts and osteoprogenitor cells and thereby augments the process of bone **regeneration** from the cells already present in the endosteum and periosteum.

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L17 ANSWER 1 OF 4 MEDLINE
 ACCESSION NUMBER: 96023917 MEDLINE
 DOCUMENT NUMBER: 96023917
 TITLE: Commercially-prepared allograft material has biological activity in vitro.
 AUTHOR: Shigeyama Y; D'Errico J A; Stone R; Somerman M J
 CORPORATE SOURCE: Department of Periodontics/Prevention/Geriatrics, University of Michigan, Ann Arbor, USA.
 CONTRACT NUMBER: DE09532 (NIDCR)
 SOURCE: JOURNAL OF PERIODONTOLOGY, (1995 Jun) 66 (6) 478-87.
 Journal code: JMT. ISSN: 0022-3492.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Dental Journals
 ENTRY MONTH: 199601

DUPLICATE 1

AB The well-established finding that implantation of demineralized bone matrix at non-skeletal sites results in formation of **cartilage** and bone has been attributed to bone morphogenetic proteins/factors. Commercially-available demineralized bone allograft materials are being used currently to reconstruct/**regenerate** bone. The studies described here focused on establishing biological activity of protein extracts prepared from commercially obtained bone **graft** material in vitro. Furthermore, the biological activity of these protein extracts in vitro was compared with similar extracts prepared from freshly obtained human bone. Biological activities of bone matrix proteins examined included their ability to promote proliferation, attachment, and migration of gingival fibroblasts using an in vitro system. Guanidine followed by guanidine/EDTA was used to separate bone matrix proteins into proteins associated with soft tissues of bone and proteins retained within the mineral compartment, respectively. Two preparations of each starting material were tested and the biological activity of each preparation was evaluated in triplicate at least three times. Slot blot analysis revealed that commercially-prepared material contained type I collagen; fibronectin; BSP; and **BMP**-2, 4, and 7. However, the freshly prepared bone extracts appeared to have higher **BMP** concentrations. The ability of commercial extracts to promote cell proliferation, while significant, was limited and significantly less when compared with similar extracts prepared from freshly obtained bone. All extracts promoted cell attachment significantly, while none of the extracts promoted cell migration. Thus, commercially-prepared material retained proteins having the capacity to influence cell behavior in vivo. However, some biological activity as measured in vitro was lost as a result of tissue processing.

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L16 ANSWER 5 OF 8 MEDLINE
 ACCESSION NUMBER: 1998258985 MEDLINE
 DOCUMENT NUMBER: 98258985
 TITLE: Osteogenic protein (OP-1, BMP-7) stimulates cartilage differentiation of human and goat perichondrium tissue in vitro.
 AUTHOR: Klein-Nulend J; Louwerse R T; Heyligers I C; Wuisman P I; Semeins C M; Goei S W; Burger E H
 CORPORATE SOURCE: ACTA-Vrije Universiteit, Department of Oral Cell Biology, Amsterdam, The Netherlands..
 J.Klein_Nulend.OCB.ACTA@med.vu.nl
 SOURCE: JOURNAL OF BIOMEDICAL MATERIALS RESEARCH, (1998 Jun 15) 40 (4) 614-20.
 Journal code: HJJ. ISSN: 0021-9304.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199811
 ENTRY WEEK: 19981104

AB The objective of this study was to examine in vitro the influence of recombinant human osteogenic protein-1 [rhOP-1, or **bone morphogenetic protein-7 (BMP-7)**] on cartilage formation by human and goat perichondrium tissue containing progenitor cells with chondrogenic potential. Fragments of outer ear perichondrium tissue were embedded in clotting autologous blood to which rhOP-1 had been added or not added (controls), and the resulting explant was cultured for 3 weeks without further addition of rhOP-1. Cartilage formation was monitored biochemically by measuring [35S]-sulphate incorporation into proteoglycans and histologically by monitoring the presence of metachromatic matrix with cells in nests. The presence of rhOP-1 in the explant at the beginning of culture stimulated [35S]-sulphate incorporation into proteoglycans in a dose-dependent manner after 3 weeks of culture. Maximal stimulation was reached at 40 microg/mL (human explants: +148%; goat explants: +116%). Histology revealed that explants treated with 20-200 microg/mL of rhOP-1, but not untreated control explants, contained areas of metachromatic-staining matrix with chondrocytes in cell nests. It was concluded that rhOP-1 stimulates differentiation of cartilage from perichondrium tissue. The direct actions of rhOP-1 on perichondrium cells in the stimulation of chondrocytic differentiation and production of cartilage matrix in vitro provides a cellular mechanism for the induction of cartilage formation by rhOP-1 in vivo. Thus rhOP-1 may promote early steps in the cascade of events leading to cartilage formation and could prove to be an interesting factor in the **regeneration** of cartilage in **articular cartilage** defects.

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 R856.36